

20071207.ba v04_n117.bam.20071207

>From ???@??? Fri Dec 7 00:24:16 2007 -0600
Date: Fri, 7 Dec 2007 06:23:06 GMT
From: Old Tube Radios <boatanchors@theporch.com>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: BOATANCHORS digest 4117
Message-Id: <20071207062307.C723047006B@srvr1.theporch.com>

BOATANCHORS Digest 4117

Topics covered in this issue include:

- 1) Re: Valiant chirp.
by "Tom Rauch" <w8ji@contesting.com>
- 2) RE: Valiant chirp.
by "Dr. James C. Garland" <4cx250b@muohio.edu>
- 3) Re: Valiant chirp.
by "Al Parker" <anchor@ec.rr.com>
- 4) Re: Valiant chirp.
by "Tom Rauch" <w8ji@contesting.com>
- 5) Re: Valiant chirp.
by Robert Nickels <w9ran@oneradio.net>
- 6) Re: Valiant chirp - fixed (long)
by "Al Parker" <anchor@ec.rr.com>
- 7) Re: Valiant chirp - fixed (long) rev.
by "Al Parker" <anchor@ec.rr.com>
- 8) Re: Valiant chirp - fixed (long) rev.
by Richard Loken <richardlo@admin.athabascau.ca>
- 9) Re: Valiant chirp - fixed sort of?
by "Arden Allen" <gumbear@pacbell.net>
- 10) Re: Valiant chirp - fixed sort of?
by Robert Nickels <w9ran@oneradio.net>
- 11) Re: Valiant chirp - fixed (long) rev.
by "Tom Rauch" <w8ji@contesting.com>
- 12) Re: Valiant chirp - fixed (long) rev.
by "Al Parker" <anchor@ec.rr.com>
- 13) Re: Valiant chirp - fixed (long) rev.
by Richard Loken <richardlo@admin.athabascau.ca>
- 14) Re: Valiant chirp - fixed (long) rev.
by "Arden Allen" <gumbear@pacbell.net>
- 15) 22Mc Heads Up
by Richard Dillman <ddillman@igc.org>
- 16) RE: 22Mc Heads Up
by "Brian Goldsmith" <brian.goldsmith@echo1.com.au>

Message-ID: <00ea01c836f9\$2f4b4dc0\$640fa8c0@radiatoroom>

From: "Tom Rauch" <w8ji@contesting.com>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: Valiant chirp.
Date: Tue, 4 Dec 2007 23:41:56 -0500
MIME-Version: 1.0
Content-Type: text/plain;
 format=flowed;
 charset="iso-8859-1";
 reply-type=response
Content-Transfer-Encoding: 7bit

> The 40 meter Valiant chirp is due to the VFO and final
> being on the same frequency on this band (the same is true
> on 160 but the problem is not as evident) and the problem
> is apparently due to RF getting back into the VFO. A good
> ground is absolutely critical on this band, also tighten
> all of the screws around the VFO shield. To get rid of
> the last of the chirp I had to use some additional foil
> shielding tape to cover an opening around where the tuning
> shaft goes into the VFO. I wish Johnson had set these up
> to use the 160 meter signal out of the VFO with
> quadrupling to 40-while searching for the problem I
> temporarily disconnected the switching arrangement on the
> VFO and ran it this way on 40 and there was absolutely no
> chirp.

Roger,

If your Valiant was cured by taping and grounding, then
apparently the problem I traced down in mine is in all
Valiants or at least more than just mine.

I could reduce the chirp in mine with a bunch of temporary
front panel and VFO shaft and shield grounding, but I
elected to do the least invasive cure. I even considered an
insulated coupler, but didn't want to cut the tuning shaft.

I got out my H field probe and started sniffing around
inside the cabinet and found all of the problematic current
was coming from the shaft that runs back to the plate tuning
capacitor in the PA tank. I measured almost 1/2 amp of RF
current on that shaft on 40 meters in mine!! It was making
the VFO shaft hot with RF.

Replacing those silly insulated grommets under the plate
tuning cap with stainless steel washers dropped the shaft
current to a few milliamperes and totally stopped the chirp.
I'm still puzzled why they ran that cap up on insulated

washers. All my channel 2 and channel 5 TVI went away when I grounded that cap too!!!

73 Tom

From: "Dr. James C. Garland" <4cx250b@muohio.edu>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: RE: Valiant chirp.
Date: Wed, 5 Dec 2007 06:46:22 -0700
Message-ID: <01ac01c83745\$396f5d90\$bd00a8c0@Garland>
MIME-Version: 1.0
Content-Type: text/plain;
 charset="us-ascii"
Content-Transfer-Encoding: 7bit

-----Original Message-----

From: owner-boatanchors@theporch.com [mailto:owner-boatanchors@theporch.com]
On Behalf Of Tom Rauch
Sent: Tuesday, December 04, 2007 9:42 PM
To: Old Tube Radios
Subject: Re: Valiant chirp.
I got out my H field probe and started sniffing around inside the cabinet and found all of the problematic current was coming from the shaft that runs back to the plate tuning capacitor in the PA tank. I measured almost 1/2 amp of RF current on that shaft on 40 meters in mine!! It was making the VFO shaft hot with RF.

What's an H field probe, Tom? Never heard of it, but sounds like we all ought to have one. How's it work and where do I get it?

73,
Jim W8ZR

Message-ID: <0b9201c83749\$3ea5c250\$6401a8c0@reloaded>
From: "Al Parker" <anchor@ec.rr.com>
To: Old Tube Radios <boatanchors@theporch.com>
Cc: "Tom Rauch" <w8ji@contesting.com>,
 <wq9e@dtinspeed.net>
Subject: Re: Valiant chirp.
Date: Wed, 5 Dec 2007 09:15:09 -0500
MIME-Version: 1.0
Content-Type: text/plain;
 format=flowed;

charset="iso-8859-1";
reply-type=original
Content-Transfer-Encoding: 7bit

Hi folks,

Thanks to Tom & Rodger for the quick responses which point to the same cause, which apparently wasn't well known. They both have seen the problem and reached the same conclusions re: the cause, RF getting back into the VFO, when the VFO & operating freq. are the same.

I'll get the heavy beast out of the cabinet today and do some trial and error work. I'll let you all know the results. Other than this problem I've been happy with this xmtr, and was looking fwd to some CW opn on 40m. I've also hooked up an SB-10 to it, but have not tried it out on teh air yet. Have made a few AM QSO's. I have replaced questionable components in the audio secn, p.s., and elsewhere, have done no mods exc. for the SB-10 adaptation.

I posted this problem to this list, BA at The Porch, and to the normally quiet Johnson list. Interestingly, only one response from the Johnson list, and that was a direct response to me bringing up another subject.

(I also am interested in the H-field probe.)

73,

Al, W8UT

New Bern, NC

www.boatanchors.org

www.hammarlund.info

Message-ID: <0e5d01c83751\$64bf0ca0\$640fa8c0@radioroom>

From: "Tom Rauch" <w8ji@contesting.com>

To: Old Tube Radios <boatanchors@theporch.com>

Subject: Re: Valiant chirp.

Date: Wed, 5 Dec 2007 10:13:20 -0500

MIME-Version: 1.0

Content-Type: text/plain;

format=flowed;

charset="iso-8859-1";

reply-type=original

Content-Transfer-Encoding: 7bit

> What's an H field probe, Tom? Never heard of it, but
> sounds like we all
> ought to have one. How's it work and where do I get it?

It's a tiny magnetic field sensor. I use it with a calibrated RF voltmeter to measure magnetic fields... which of course are caused by RF current. I inherited mine when measuring RF levels in a medical application. You wouldn't have to have one that is calibrated if it is just for

sniffing around.

Although I've never done this, I suppose one could be built by winding a small coil around a reasonable sized threaded powdered iron IF transformer slug. You could insulate it really well and run some miniature coax out to a termination, where the RF voltage (which would be proportional to RF current or magnetic field) could be detected.

Handy from time to time cause you can't really sniff around inside things with a FS meter antenna.

73 Tom

Message-ID: <4756D297.8080707@oneradio.net>
Date: Wed, 05 Dec 2007 10:32:23 -0600
From: Robert Nickels <w9ran@oneradio.net>
MIME-Version: 1.0
To: Old Tube Radios <boatanchors@theporch.com>
CC: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: Valiant chirp.
Content-Type: text/plain; charset=ISO-8859-1; format=flowed
Content-Transfer-Encoding: 7bit

Tom Rauch wrote:

> Although I've never done this, I suppose one could be built by winding
> a small coil around a reasonable sized threaded powdered iron IF
> transformer slug. You could insulate it really well and run some
> miniature coax out to a termination, where the RF voltage (which would
> be proportional to RF current or magnetic field) could be detected.
Good thoughts Tom. For an expedient, you can try the trick an old
(well, let's say "experienced") EMI engineer showed me years ago, and
clip the ground lead of your scope probe to the tip, forming a small loop.

73, Bob W9RAN

Message-ID: <0c4701c83789\$e718d270\$6401a8c0@reloaded>
From: "Al Parker" <anchor@ec.rr.com>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: Valiant chirp - fixed (long)
Date: Wed, 5 Dec 2007 16:57:59 -0500
MIME-Version: 1.0
Content-Type: text/plain;
format=flowed;
charset="iso-8859-1";

reply-type=response

Content-Transfer-Encoding: 7bit

Hi agn folks,

Well, I think I've made the cure, thanks to all. I did get 3 responses from the BA list, and 2 from the Johnson list. 4, 2 from each list, said it was 40m RF getting back into the VFO, which was operating on the output freq.

3 suggested fiddling the mechanical switch that changes the VFO freq. from 1.8mc to 7mc on 40m & higher freqs. That would keep the VFO from operating on the output freq. exc. on 160m, where it doesn't seem to be a problem for anyone.

Tom, W8JI, correctly identified the actual cause of the problem by sniffing with a probe. The final tuning capacitor, C8, is isolated from ground for some reason. Usually a capacitor rotor and shaft is grounded. In this case the shaft, which is about 8" long, and goes thru the front panel to it's knob, picks up RF from the final tank coil which is conveniently close coupled to the capacitor rotor and shaft. I quote Tom's analysis here:

"I got out my H field probe and started sniffing around inside the cabinet and found all of the problematic current was coming from the shaft that runs back to the plate tuning capacitor in the PA tank. I measured almost 1/2 amp of RF current on that shaft on 40 meters in mine!! It was making the VFO shaft hot with RF."

I made myself a crude but sensitive probe and also found a large amount of RF on the shaft. I did as he did, with a long insulated screwdriver grounded the shaft - the frequency shifted slightly, and the chirp was gone (maybe). I say maybe because in my case once I had slid the chassis about 10" forward out of the cabinet, there was no chirp to be found. Ain't these things fun? Anyway, to lengthen the story, I really didn't want to horse the thing all the way out of the cabinet and remount the capacitor to ground it, as Tom had done. If I had a strip of phosphor bronze I would have made a grounding strip for the shaft to rub on, and mount it using existing hardware that wouldn't require getting underneath. I almost started making a spring strip from a hacksaw blade, to mount a graphite motor brush on to rub on the shaft & ground it. But the motor brush pair had a nice 3" long stranded copper wire, probably a bronze alloy. So I cut it off, twisted it around the 1/4" shaft 4 times, crimped the ends in a spade terminal and put the spade under a VFO shield screw, with some "preload" to keep the coils tight on the shaft. A couple drops of DeOxit ProGold, and it checked out fine business with the RF probe, and even after going back in the cabinet. It may not be a long term permanent fix, but I think it'll do the job for many months. I could have remounted the capacitor in less time, but just don't feel strong today. I've horsed it around enough in the last month.

Thanks to all who helped.

73,
Al, W8UT
New Bern, NC
www.boatanchors.org
www.hammarlund.info

Message-ID: <0c7701c8378c\$aa4ab130\$6401a8c0@reloaded>
From: "Al Parker" <anchor@ec.rr.com>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: Valiant chirp - fixed (long) rev.
Date: Wed, 5 Dec 2007 17:17:46 -0500
MIME-Version: 1.0
Content-Type: text/plain;
 format=flowed;
 charset="iso-8859-1";
 reply-type=response
Content-Transfer-Encoding: 7bit

Hi agn,
 After all that, I forgot to say I've posted a pic of the fix:
<http://www.boatanchors.org/valiant40mchirp.htm>
click on the thumbnail to get a full sized one.
73,
al, w8ut

Date: Wed, 05 Dec 2007 15:43:32 -0700
From: Richard Loken <richardlo@admin.athabasca.ca>
Subject: Re: Valiant chirp - fixed (long) rev.
To: Old Tube Radios <boatanchors@theporch.com>
Cc: Old Tube Radios <boatanchors@theporch.com>
MIME-version: 1.0
Content-type: TEXT/PLAIN; charset=US-ASCII

On Wed, 5 Dec 2007, Al Parker wrote:

> After all that, I forgot to say I've posted a pic of the fix:
> <http://www.boatanchors.org/valiant40mchirp.htm>
> click on the thumbnail to get a full sized one.

I remain preoccupied with the fact that the capacitor was insulated from the chassis yet grounded to the chassis. Were they trying to avoid the very circulating currents that they created?

--

Richard Loken VE6BSV, Systems Programmer - VMS : "Anybody can be a father
Athabasca University : but you have to earn
Athabasca, Alberta Canada : the title of 'daddy'"
** richardlo@admin.athabascau.ca ** : - Lynn Johnston

Message-ID: <003a01c8379b\$8bdc0550\$019f480c@KB6NAX>

From: "Arden Allen" <gumbear@pacbell.net>

To: Old Tube Radios <boatanchors@theporch.com>

Cc: "Old Tube Radios" <boatanchors@theporch.com>

Subject: Re: Valiant chirp - fixed sort of?

Date: Wed, 5 Dec 2007 16:03:57 -0800

MIME-Version: 1.0

Content-Type: text/plain;
charset="iso-8859-1"

Content-Transfer-Encoding: 7bit

Rich fingers the gremlin:

> I remain preoccupied with the fact that the capacitor was insulated from
> the chassis yet grounded to the chassis. Were they trying to avoid the
> very circulating currents that they created?

It's been a loooooong time since I've had my nose in a Valiant, and it wasn't being run on 40M ;-). But here's a couple of things to squeeze into the brain bucket: Foist, any tunable RF amp running straight through (not doubling or tripling) is a challenge to make stable across its frequency range. Some amps are virtually stable, i.e., they seem to run OK when operating normally. But when somewhat mistuned take off on their own. And then there are the sneaky miscreant amps that are marginally unstable when operating normally but will misbehave when drive falls below normal. Now I suppose you can argue the Valiant's VFO gets dragged into the picture and becomes part of the unwelcome oscillatory circuit or perhaps it's the amp taking off on its own for a short while when prompted by VFO drive that's not up to full strength yet but then forces the amp to behave at full drive. Or perhaps something like that when electrode voltages haven't reached normal operating values yet.

So as Rich appears to ask, why did Johnson build a marginally unstable amp for 40 meters? Ever since I rebuilt a Heath DX-40 without the silly copper bus wires and obtained stable operation on all bands simply by making sure all grounds were reliable I've presumptuously formed the opinion there are/were probably two conflicting schools of practice. One says that as long as you can't make ground impedances equal to zero you should try to *steer* ground currents out of harm's way with isolated grounds that return to a so-called proper "Mecca" common ground point. The other school says that you can't make ground impedances equal to zero but you sure can get

them a lot closer to zero if you minimize inductance and add conductivity to the ground circuit, i.e., the *ground plane* approach. The most informed practioners probably appreciate both concepts and use the ground plane approach but are additionally careful where currents are introduced into the not quite zero impedance ground plane. The lucky ones build stuff that no one can imagine will work properly but somehow do. Those designs probably have enough serendipitously acquired negative feedback to cancel the ignored positive feedback concerns. One wonders....

Arden Allen
KB6NAX

Message-ID: <475746DB.3030705@oneradio.net>
Date: Wed, 05 Dec 2007 18:48:27 -0600
From: Robert Nickels <w9ran@oneradio.net>
MIME-Version: 1.0
To: Old Tube Radios <boatanchors@theporch.com>
CC: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: Valiant chirp - fixed sort of?
Content-Type: text/plain; charset=ISO-8859-1; format=flowed
Content-Transfer-Encoding: 7bit

Arden Allen wrote:

> The most informed
> practioners probably appreciate both concepts and use the ground plane
> approach but are additionally careful where currents are introduced into the
> not quite zero impedance ground plane.

Good observation, Arden. Interesting too that thanks to the "digital age", engineers today are much more aware of conducted and radiated interference and susceptibility and techniques for mitigation than even 15 or 20 years ago. Heck, back when the boys at EFJ were designing this stuff the ferrite bead hadn't even been invented yet!

Back in the 80s, I had to teach some new techs who mostly had just been taught digital stuff the rules for proper instrumentation grounding and shielding. After demonstrating proficiency, the were allowed to get their wire-wrap wire out of quarantine.

73, Bob W9RAN

Message-ID: <0f9301c837a5\$fe135330\$640fa8c0@radiatoroom>
From: "Tom Rauch" <w8ji@contesting.com>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: Valiant chirp - fixed (long) rev.
Date: Wed, 5 Dec 2007 20:18:49 -0500
MIME-Version: 1.0

Content-Type: text/plain;
format=flowed;
charset="iso-8859-1";
reply-type=original
Content-Transfer-Encoding: 7bit

> I remain preoccupied with the fact that the capacitor was
> insulated from
> the chassis yet grounded to the chassis. Were they trying
> to avoid the
> very circulating currents that they created?

Whatever the root cause, the designer intentionally isolated the frame (rotor) and brought it down to the area of the loading cap with a small buss wire. It wasn't uncommon to do things like that just from habit.

In all the PA's I've ever designed or looked at, probably a few dozen low power HF tube applications in the lot, harmonic suppression and stability were always improved with short direct to chassis grounding of the tuning cap. This is because the excitation path in single-ended designs is through the time-varying cathode to anode resistance of the tube.

http://www.w8ji.com/Vacuum_tube_amps.htm

There are also other paths creating even larger rotor to chassis currents. The loading cap itself is grounded to the chassis, and the return path for circulating currents is through that cap. So you have tank Q and circulating currents flowing through that cap.

When they put a small skinny long buss wire from the rotor (frame) of that tuning cap to the chassis, the frame of that capacitor lifts appreciably in RF voltage. That voltage is what drives or diverts tank and PA currents down the tuning shaft. It isn't the tank coil via induction, it is the direct wired connection to the poorly grounded capacitor frame (rotor) that causes the problem. While it might have been habit from other designs, like push pull amps or breadboard amps, in a metal chassis single-ended amp, floating the tuning cap frame cannot ever be the best way to arrange things.

Perhaps when the rigs were new, the shaft bushings further up that shaft kept it grounded. The VFO shaft bushings were also probably clean and shiny. Maybe that hid the problem.

Whatever the case, the problem absolutely is not instability in any external stages. The floating also didn't make the PA better. The PA stage got better, not worse, when I replaced the upper insulated washers with stainless steel washers (stainless because they will not corrode). Harmonic suppression improved also.

It's a very simple basic problem. There are a few amperes of RF current flowing through the plate tuning cap. That cap is only grounded through a long skinny buss wire. This means the rotor, since the thing was first fired up, always had a voltage difference between the cap frame and the chassis. That voltage would increase with frequency because the impedance to ground would increase with frequency. On 40 meters the front panel has enough current flowing to lift the shaft of the VFO away from the ground potential of the VFO box. That directly couples the PA output back into the VFO grid, and it pulls the oscillator.

Since there is no reason to have RF currents flowing out that shaft, I grounded the frame (rotor) of the tuning cap with metal contact directly to the chassis with zero lead length by removing fiber washers and replacing them with stainless. This is the way any single ended tank should be constructed, unless it is built on a wood chassis.

73 Tom

Message-ID: <0cb101c837a7\$7470e140\$6401a8c0@reloaded>
From: "Al Parker" <anchor@ec.rr.com>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: Valiant chirp - fixed (long) rev.
Date: Wed, 5 Dec 2007 20:29:32 -0500
MIME-Version: 1.0
Content-Type: text/plain;
 format=flowed;
 charset="iso-8859-1";
 reply-type=response
Content-Transfer-Encoding: 7bit

Hi Tom,

Thanks for clearing my thinking about this. You can be sure that the next time I have this beast out of the cabinet I'll be properly grounding that capacitor, with SS washers.

Thanks again for your help. Your solution, and the other guys who recognised the problem, sure saved me some time and head scratching.

73,
Al, W8UT
New Bern, NC
www.boatanchors.org
www.hammarlund.info

----- Original Message -----

From: "Tom Rauch" <w8ji@contesting.com>
To: "Old Tube Radios" <boatanchors@theporch.com>
Sent: Wednesday, December 05, 2007 8:18 PM
Subject: Re: Valiant chirp - fixed (long) rev.

>> I remain preoccupied with the fact that the capacitor was insulated from
>> the chassis yet grounded to the chassis. Were they trying to avoid the
>> very circulating currents that they created?
>
> Whatever the root cause, the designer intentionally isolated the frame
> (rotor) and brought it down to the area of the loading cap with a small
> buss wire. It wasn't uncommon to do things like that just from habit.
>
> In all the PA's I've ever designed or looked at, probably a few dozen low
> power HF tube applications in the lot, harmonic suppression and stability
> were always improved with short direct to chassis grounding of the tuning
> cap. This is because the excitation path in single-ended designs is
> through the time-varying cathode to anode resistance of the tube.
>
> http://www.w8ji.com/Vacuum_tube_amps.htm
>
> There are also other paths creating even larger rotor to chassis currents.
> The loading cap itself is grounded to the chassis, and the return path for
> circulating currents is through that cap. So you have tank Q and
> circulating currents flowing through that cap.
>
> When they put a small skinny long buss wire from the rotor (frame) of that
> tuning cap to the chassis, the frame of that capacitor lifts appreciably
> in RF voltage. That voltage is what drives or diverts tank and PA currents
> down the tuning shaft. It isn't the tank coil via induction, it is the
> direct wired connection to the poorly grounded capacitor frame (rotor)
> that causes the problem. While it might have been habit from other
> designs, like push pull amps or breadboard amps, in a metal chassis
> single-ended amp, floating the tuning cap frame cannot ever be the best
> way to arrange things.
>
> Perhaps when the rigs were new, the shaft bushings further up that shaft
> kept it grounded. The VFO shaft bushings were also probably clean and
> shiny. Maybe that hid the problem.
>

> Whatever the case, the problem absolutely is not instability in any
> external stages. The floating also didn't make the PA better. The PA stage
> got better, not worse, when I replaced the upper insulated washers with
> stainless steel washers (stainless because they will not corrode).
> Harmonic suppression improved also.
>
> It's a very simple basic problem. There are a few amperes of RF current
> flowing through the plate tuning cap. That cap is only grounded through a
> long skinny buss wire. This means the rotor, since the thing was first
> fired up, always had a voltage difference between the cap frame and the
> chassis. That voltage would increase with frequency because the impedance
> to ground would increase with frequency. On 40 meters the front panel has
> enough current flowing to lift the shaft of the VFO away from the ground
> potential of the VFO box. That directly couples the PA output back into
> the VFO grid, and it pulls the oscillator.
>
> Since there is no reason to have RF currents flowing out that shaft, I
> grounded the frame (rotor) of the tuning cap with metal contact directly
> to the chassis with zero lead length by removing fiber washers and
> replacing them with stainless. This is the way any single ended tank
> should be constructed, unless it is built on a wood chassis.
>
> 73 Tom

Date: Wed, 05 Dec 2007 19:42:49 -0700
From: Richard Loken <richardlo@admin.athabascau.ca>
Subject: Re: Valiant chirp - fixed (long) rev.
To: Old Tube Radios <boatanchors@theporch.com>
Cc: Old Tube Radios <boatanchors@theporch.com>
MIME-version: 1.0
Content-type: TEXT/PLAIN; charset=US-ASCII

Thanks for the interesting and detailed essay. It remains curious that they did it that way but maybe I should put it down to seat of the pants design and habits as you suggested. As I think of it, I remember "designing" tube transmitters in my teens and there was not much actual design involved since all tube AM/CW HF transmitters were pretty much alike at the schematic level, even an engineer might have run more on habit than analysis.

I just assume things are done for a reason.

--

Richard Loken VE6BSV, Systems Programmer - VMS	:	"Anybody can be a father
Athabasca University	:	but you have to earn
Athabasca, Alberta Canada	:	the title of 'daddy'"
** richardlo@admin.athabascau.ca **	:	- Lynn Johnston

Message-ID: <001501c83852\$2aee6780\$b29d480c@KB6NAX>
From: "Arden Allen" <gumbear@pacbell.net>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: Valiant chirp - fixed (long) rev.
Date: Thu, 6 Dec 2007 13:51:11 -0800
MIME-Version: 1.0
Content-Type: text/plain;
 charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

>That directly couples the PA output back into the
VFO grid, and it pulls the oscillator.

Tom, the critical detail I'm pointing to is the fact that the Valiant "chirps" until the "fix is in." You acknowledge that there is a momentary frequency shift for a chirp to occur by saying, "...it pulls the oscillator." In my mind it stands to reason that poor isolation between stages is invitation to instability whether by that is meant the PA wants to take off on its own or that there is just a struggle between the PA and VFO to determine the operating frequency. The stability criteria for an amplifier is influenced by coupling/isolation factors so it's not a moot question. Even if an amplifier is unconditionally stable on its own unintended external feedback paths can influence overall stability of two or more cascaded stages.

Arden Allen
KB6NAX

Message-ID: <27341906.1197001420997.JavaMail.root@mswamui-cedar.atl.sa.earthlink.net>
Date: Thu, 6 Dec 2007 20:23:40 -0800 (GMT-08:00)
From: Richard Dillman <ddillman@igc.org>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: 22Mc Heads Up
Mime-Version: 1.0
Content-Type: text/plain; charset=UTF-8
Content-Transfer-Encoding: 7bit

It is possible, not guaranteed but possible, that we may be in a position to exercise the KSM 22Mc transmitter on Saturday, 8 December. The transmitter hasn't been turned on in some time so we might encounter a glitch or two when the money button is pressed. But if you're in a position to listen we'd appreciate signal reports. The frequency is: 22445.8.

As usual, we'll be on these CW frequencies:

426
500
4350.5
6474.0
8438.3
12993.0
16914.0

and on these RTTY frequencies:

8433.0
12631.0

The KSM operator may be reached directly via Skype when the station is on the air at:

radio-ksm

K6KPH will guard:

7050.0
14050.0

for signal reports. Continue to call "K6KPH" until the operator sends "DE", then give your call.

If you're not a member of our email distribution list and would like to become a member for information about our operations just send an email to:

radiomarine-subscribe@yahoogroups.com

VY 73,

RD

=====
Richard Dillman, W6AWO
Chief Operator, Coast Station KSM
Maritime Radio Historical Society
<http://www.radiomarine.org>
=====

From: "Brian Goldsmith" <brian.goldsmith@echo1.com.au>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: RE: 22Mc Heads Up

Date: Fri, 7 Dec 2007 17:22:33 +1100
Message-ID: <000001c83899\$8d8dc790\$6600a8c0@pcbriang>
MIME-Version: 1.0
Content-Type: text/plain;
charset="us-ascii"
Content-Transfer-Encoding: 7bit

-----Original Message-----
From: Richard Dillman

It is possible, not guaranteed but possible, that we may be in a position to exercise the KSM 22Mc transmitter on Saturday, 8 December.

***Richard, thanks for the good news. Would it be possible to designate what time zone of the world you are referring to and could you please indicate times in UTC?

Sorry to be a pedant, the spirit is willing but the brain is weak!

Brian g

End of BOATANCHORS Digest 4117
